Remarks

Applicant respectfully traverses the pending Section 103(a) rejections of claims 1-7, 9-10 and 12-17 because the proposed combination does not correspond to the claimed invention, because the proposed modification of the Tamba reference undermines the operation of the Tamba reference, and because the Examiner fails to present a valid reason for the proposed modification of the Tamba reference. For the reasons and arguments set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

In the final Office Action dated October 17, 2007, claims 1, 3-7, 9 and 14-15 stand rejected under 35 U.S.C. § 103(a) over Tamba (U.S. Patent No. 5,594,383) in view of Kimura *et al.* (U.S. Patent No. 6,326,838); and claims 2, 10 and 12-13 stand rejected under 35 U.S.C. § 103(a) over Tamba in view of Kimura and further in view of Petersen *et al.* (U.S. Patent No. 5,325,317). The Office Action notes that claims 16-17 are allowed.

Applicant respectfully traverses each of the Section 103(a) rejections because the Examiner fails to cite to any reference that teaches or suggests the calibration of continuous-time filters as in the claimed invention. For example, Applicant's specification includes supporting example implementations directed to varying a threshold voltage, varying the input voltage of an integrator or varying the frequency of a clock signal. None of the references cited by the Examiner provide teachings that correspond to such aspects of the claimed invention. Rather, the Examiner appears to be improperly using hindsight reconstruction based upon Applicant's own teaching to assert correspondence to aspects of the claimed invention directed to calibrating continuous-time filters. *See, e.g.,* M.P.E.P. § 2142. The following discussion more particularly addresses these issues in relation to specific claims.

Applicant respectfully traverses the Section 103(a) rejection of claims 1, 3-7, 9 and 14-15 because the Examiner's asserted modification undermines the operation of the Tamba reference. As indicated in M.P.E.P. § 2143.01, when the asserted modification would undermine both the operation and the purpose of the main reference, the §103 rejection is improper. *See also In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984) (A §103 rejection cannot be maintained when the asserted modification

undermines the operation and/or purpose of main reference.). The Examiner proposes changing the Tamba circuit so that it uses a different reference voltage (*i.e.*, other than ground); however, this change would change the comparison performed by parallel-operating operational amplifiers (or comparators) 31 and 32 of Figure 10, and thereby adversely alter the output of the phase detect circuit 30 which, in turn, would result in an inability to synchronize to the input signal of the receiver. As indicated at column 11, the purpose of this embodiment (shown in Figures 9 and 10) is to precisely detect the phase difference for the feedback and overall operation of the receiver circuit. Therefore, this asserted modification is illogical and improper because it would change the Tamba circuit so that it fails to operate generally and fails to operate according to its intended purpose. Accordingly, the Section 103(a) rejection of claims 1, 3-7, 9 and 14-15 is improper and Applicant requests that it be withdrawn.

Moreover, the Examiner fails to present a valid reason for the proposed modification of the Tamba reference. Under the recent USPTO guidelines (based on the recent U.S. Supreme Court decision as to teaching/suggestion/motivation under §103), for a rejection to be maintained under §103, the rejection must present some proper reason why a skilled artisan would change the main reference as proposed by the Examiner. *See KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (U.S. 2007) ("A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art.")

In this instance, the Examiner acknowledges that Tamba's comparator 31 uses a fixed reference voltage (*i.e.,* ground), and the Examiner then asserts that it would be obvious to incorporate the variable threshold as suggested by Kimura into the circuit of Tamba "for the purpose of tuning the plurality of transconductance amplifiers of the slave filter with high-precision and for reducing size and power consumption." *See, e.g.,* page 2, last line to page 3:8 of the instant Office Action. Applicant submits that it is illogical for the Examiner to assert that replacing the ground connection of Tamba's comparator 32 (*see e.g.,* Figure 10) with Kimura's reference voltage source (25-28), switch 42 and selector 44 (*see e.g.,* Figure 1) would reduce the size and power consumption of Tamba's circuit. It would be readily apparent to one of skill in the art that incorporating Kimura's reference voltage source (25-28), switch 42 and selector 44 into Tamba's circuit would

increase both the size and power consumption of Tamba's circuit relative to a simple ground connection. Moreover, the Kimura reference teaches controlling the transconductance (50-53) of each transconductance amplifier using selector 40 and switch 43 (*see e.g.,* Figure 1); however, Tamba's filter 10 is not shown as having a plurality of transconductance amplifiers or any corresponding selector and switch that indicate the capability of controlling a plurality of transconductance amplifiers (*see e.g.,* Figure 10). Thus, there would be no reason for one of skill in the art to modify Tamba's circuit to control a nonexistent plurality of transconductance amplifiers. Applicant submits that the Examiner appears to be improperly resorting to hindsight reconstruction based upon Applicant's disclosure in an attempt to arrive at a combination that corresponds to the claimed invention. *See, e.g.,* M.P.E.P. § 2142.

In view of the above, there is no valid reason for the Examiner's proposed modification. The recent Supreme Court decision has clarified that there must be a valid reason to combine the references. *See KSR Int'l Co. v. Teleflex Inc.* discussed above; see also numerous USPTO Appeal board decisions that have cited the Supreme Court's decision as support for overturning Examiners' rejections for lack of adequate rationale to combine. Accordingly, the Section 103(a) rejection of claims 1, 3-7, 9 and 14-15 is improper and Applicant requests that it be withdrawn.

Applicant further traverses the Section 103(a) rejection of claims 6 and 7 because the Examiner fails to cite to any portion of the Tamba and Kimura references as corresponding to numerous aspects of the claimed invention. Regarding claim 6, the Office Action does not cite to any portion of Tamba or Kimura as corresponding to aspects directed to the phase frequency comparator including a loop filter and a phase frequency detector situated in front of the loop filter. Regarding claim 7, the Office Action does not cite to any portion of Tamba or Kimura as corresponding to aspects directed to the master control unit including a switch. Applicant submits that without such citations the Examiner has failed to show correspondence between the asserted combination and the limitations of claims 6 and 7. Therefore, the Section 103(a) rejection of claims 6 and 7 is improper and Applicant requests that it be withdrawn.

Applicant respectfully traverses the Section 103(a) rejection of claims 2, 10 and 12-13 based upon the Tamba reference in view of the above discussion relating to the

Section 103(a) rejection of claim 1. That is, where an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *See, e.g., In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). In at least this regard, the Section 103(a) rejection of claims 2, 10 and 12-13 is improper in that these claims depend from claim 1. Applicant submits that the addition of the Petersen reference does not overcome the above discussed deficiencies of the rejection. Accordingly, Applicant requests that the Section 103(a) rejection of claims 2, 10 and 12-13 be withdrawn.

Applicant also traverses the finality of the Office Action because, as consistent with M.P.E.P.§706.07(a), second actions should not be final where the Examiner introduces a new ground of rejection that is neither necessitated by Applicant's amendment of the claims nor based on information submitted in an information disclosure statement. In this instance, the claim rejections were newly presented in the Final Office Action, relying upon Tamba as the primary reference modified by Kimura. Applicant's claim amendments filed July 27, 2007 did necessitate this new rejection as the aspects directed to the variable threshold voltage were already present. Also, the Kimura reference was not submitted in an information disclosure statement. Applicant submits that a Final rejection would not have been appropriate in response to the RCE filed March 6, 2007. Thus, it is inappropriate for the Examiner to present a new rejection in the form of a final rejection in order to address aspects of the claimed invention directed to the variable threshold voltage at this time. Accordingly to M.P.E.P.§ 706.07, "The examiner should never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed, if possible, before appeal." In this regard, should any claim rejections be maintained, Applicant requests that the finality of the Office Action be removed and that the Applicant be afforded the opportunity to respond to any remaining rejections by way of a new Office Action.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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